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Gerald A. Bange
Chairperson, World Agricultural Outlook Board
Office of the Chief Economist, U.S. Department of Agriculture

THE OUTLOOK FOR WORLD GRAIN AND OILSEED MARKETS

Introduction

Thank you for the opportunity to speak to this important conference.

As chairperson of the World Agricultural Outlook Board (WAOB), I am responsible for overseeing the coordination, review, and clearance of all commodity forecasts released by the United States Department of Agriculture (USDA). It is the Board's responsibility to ensure that USDA estimates are unbiased, based on sound information, and released in a timely manner.

USDA forecasts are the primary source of information used by U.S. and world commodity markets and are the benchmark forecasts against which the forecasts of other commodity analysts are measured. The most sensitive reports, such as the monthly *World Agricultural Supply and Demand Estimates* report, are prepared under tight security. I am pleased to say that USDA reports enjoy a high level of public trust.

Economic Overview

This discussion must begin with a brief overview of today's economic environment. Since 2002, the global economy has substantially strengthened, boosting the demand for farm products. Economic growth outside the United States, which was only 1.6 percent in both 2001 and 2002, improved to 2.2 percent in 2003 and is expected to rise to 3.3 percent this year. U.S. growth, at a near standstill in 2002, rose to 3.1 percent in 2003 and is expected to be above 4.5 percent this year.

U.S. agricultural exports will reach $61.5 billion in fiscal year 2004, an all-time high. This has occurred for several reasons. First, the reduced value of the U.S. dollar makes U.S. farm products cheaper in foreign currency terms and reduces the cost of our products relative to other potential suppliers. The trade-weighted value of the dollar, measured against the currencies of countries that import U.S. agricultural products, was 6 to 7 percent lower in 2003, compared with 2001 and 2002. The trade-weighted value of the dollar, measured against the currencies of countries that compete against the U.S. in global agricultural product markets, was 15 to 20 percent lower in 2003, compared with 2001 and 2002.

A second factor resulting in greater U.S. agricultural exports has been China's growing net imports of agricultural products. China's strong economic growth, booming demand for food, accession into the World Trade Organization (WTO), and declining stocks of grain and cotton have caused U.S. agricultural exports to China to rise from $1.4 billion in FY 2002 to an estimated $5.4 billion in FY 2004. China's domestic uses of cotton and soybean meal have each nearly doubled during the past 5 years.

Currently, USDA projects record setting U.S. corn, soybean, and rice crops in 2004, a good cotton crop, but a U.S. wheat crop somewhat below the 2003 level. Despite generally larger crops in the United States and the rest of the world, world market prices are likely to remain firm as stocks at the beginning of the 2004/05 marketing year will be the lowest in many years.

World grain demand is expected to outpace production for the fifth consecutive year. By the end of this summer, global grain stocks as a percent of use will be the lowest since 1976 for rice, the lowest since 1972 for wheat, and the lowest on record for coarse grains. Stocks are also low for soybeans and cotton.

Grain and Oilseed Market Situation

My assigned speech topic today is to address the world grain and vegetable oil market situation. The reality is that in today's world no such discussion is possible without addressing recent developments here in China. I am in the right place to do that.

First, China has been the world's fastest growing large economy for a number of years. Last year, China's growth rate reached 9.1 percent despite the negative impact of the SARS epidemic. Generally, the manufacturing sector is growing at an even faster pace. Agriculture, on the other hand, is growing at a much slower pace.

Some have suggested that China's growth rate cannot be sustained. This view seems to be shared by government officials here who have expressed concern that the economy may be growing too fast. Clearly, resource constraints, most notably energy, are a concern. Raw material prices have escalated as China has become the world's third largest oil importer and the demand for steel, copper, soybeans, animal hides, and cotton has risen sharply. While a decline in the price of some manufactured items may be due to increased efficiency, it may also suggest that manufacturing capacity is being overbuilt in some areas.

China's growth is boosting the demand for many products. Imports of raw materials and agricultural products have increased dramatically not only from the United States but also the rest of the world. In 2003, the value of China's agricultural imports grew by 60 percent. It likely will grow further this year. Thus, China's accelerating demand for raw materials is contributing to stronger world prices for major commodities. China's burgeoning demand also contributed to the record-high ocean freight rates we saw until recently.

Despite vigorous growth, until recently, inflation has not been a major problem in China. To the contrary, a deflationary period started in 1998 following several years of serious inflation. Beginning last fall, however, food prices started to rise sharply. By the beginning of 2004, food prices were 15 percent above a year earlier. As yet, the manufacturing sector has not experienced sharp price increases.

In some respects, the situation in China is quite similar to what happened in the early-to-mid-1990's when grain prices in China rose rapidly. Recently, we have seen reports of sharp price increases in rice and spot grain shortages in Shanghai. A decade ago this led to large grain imports. China switched from net exports of 9 million tons in 1993 to net imports of 15 million tons in 1994, a swing of 24 million tons. China imported wheat, rice, and corn in 1994/95. In subsequent years, China implemented grain self-sufficiency policies and enjoyed good weather. As a result, China's grain supply greatly exceeded demand and prices fell from 1997 to 2002. And, once again, China became a net exporter of grain.

As appendix Figure 1 shows, Chinese and U.S. prices tend to move in tandem. Clearly, developments in China have a major impact on world grain and oilseed markets. Given this close correlation, China's policy decisions affect not only China but also the rest of the world. In response to higher food prices, we know that China this year is cutting agricultural taxes, reducing grain exports, waiving the value added tax on some wheat imports, attempting to boost production of food through direct subsidies to grain producers and higher procurement prices, and discouraging the production of some non-food crops.

How effective will these policy initiatives be? Some analysts have suggested that Chinese producers may not respond as dramatically as they did in the mid-1990s (see appendix Figure 2). Unlike a decade ago, China's farmers may now be more motivated by the profits from cash crops which they currently enjoy and less responsive to government subsidies unless made very attractive. And, as an over-riding concern, there is the continuing problem of water scarcity that may constrain China's ability to expand crop production.

Given these uncertainties, and lacking some basic supply/demand information, it has become increasingly difficult to forecast the future of Chinese agriculture. And, as indicated above, this has occurred as China's agricultural sector has become increasingly important to the rest of the world.

In the remainder of this paper, I will briefly outline the United States Department of Agriculture's current forecasts for global wheat, corn, rice, and soybean markets. I will conclude by discussing USDA's current estimates of China's grain stocks.

Grain and Oilseed Outlook for 2004/05

Wheat: The global wheat crop is forecast to increase by over 40 million tons in 2004/05. That would be the largest year-to-year increase in production in 15 years. Much of the

increase is due to larger crops in the 25 countries in the newly expanded European Union and the Former Soviet Union, two regions where crops last year were reduced by a combination of "winter-kill" and drought. Despite the larger crop this year, global wheat stocks are projected to shrink to their lowest level in 23 years. Tight global stocks are expected to support market prices. We forecast that U.S. wheat prices received by farmers will increase slightly during the 2004/05 marketing year.

Although China's wheat and corn crops are forecast to be little changed from last year, we expect endings stocks of these commodities will continue the sharp decline we have seen in recent years. Because of the recent and rapid increase in China's domestic wheat prices and a drop in state-held wheat reserves, USDA forecasts China's wheat imports in 2004/05 at 8 million tons (see appendix Figure 3). That would be up from last year's 3 million tons; would be China's largest imports since 1995/96; and would make China the world's largest wheat importer.

Rice: Global rice production (milled basis) is projected to increase about 3 percent in 2004/05 but will still be 2 percent smaller than the 1999/2000 record. Global rice consumption is expected to be record high. Ending stocks are projected to decline more than 20 percent and will fall to the lowest level since 1982/83. A sharp reduction in China's rice stocks accounts for most of the decline in global ending stocks we have seen in the past 4 years.

Globally, both area and yield are projected to be higher in 2004/05. China and India account for most of the area expansion. Larger crops in China, India, Bangladesh, the United States, Japan, South Korea, Australia, Thailand, Indonesia, Pakistan, Nigeria, and Vietnam are expected to more than offset smaller crops in Burma, Brazil, Peru, Taiwan, Sri Lanka, and Malaysia. Global rice trade for calendar year 2005 is projected at 25.3 million tons (milled basis), up almost 2 percent from 2004.

Beginning in the late 1990s, China initiated policies designed to reduce rice plantings. However, rising market prices and growing imports have resulted in China reversing this policy (see appendix Figure 4). In early 2004, China announced measures to encourage more area into rice production by 1) reducing or eliminating agricultural taxes; 2) subsidizing high-quality seed; and, 3) subsidizing machinery and equipment purchases. Additionally, for the first time since 1998, the government announced it would set a price floor for early paddy rice varieties. Early-season rice accounts for about 20 percent of China's annual production.

China's last official published estimate of rice area for the 2002/03 crop shows total rice area at 28.2 million hectares. In the absence of official data, USDA has estimated China's rice area for both 2003/04 and 2004/05. We project China's 2004/05 rice area at 27.6 million hectares, 3 percent above the estimated 2003/04 area. USDA projects China's 2004/05 crop at 120.75 million tons, 7 percent larger than last year. This would be the first production increase for China since 1997/98 (see appendix Figure 5).

Given China's declining production and stocks, China may become a net rice importer in 2004/05. If, however, China's rice production increases in 2004/05, China likely will, once again, become a net exporter. We expect China to continue imports of fragrant rice.

Corn: Global coarse grains production (of which corn represents nearly 70 percent) is forecast to increase more than 30 million tons in 2004/05. That would be the largest year-to-year increase in 9 years. Much of the increase is due to a forecast record corn crop in the U.S. and a nearly 20 million-ton-increase in the EU-25's coarse grain crops. However, once again, global stocks are forecast to decline to their lowest level in 29 years. A continuation of the world's economic recovery is expected to increase consumption of livestock products and thereby maintain robust demand for feed grains. Combined with increased use of corn for ethanol production in the United States, we expect the U.S. corn price to be stronger in 2004/05.

USDA forecasts that China's consumption of corn, driven by increasing feed and industrial use, will continue to outpace domestic production in 2004/05, and China's corn stocks will continue to decline (see appendix Figure 6). However, stocks of corn (particularly in the Northeast) appear to be large enough to support modest exports of 4 million tons (see appendix Figure 7). That would be down from the 8 million tons forecast for 2003/04 and down from the 15.2 million tons exported in 2002/03.

China Wheat, Rice, and Corn Outlook Beyond 2004/05

A decline in grain stocks in China has given rise to concerns about food security. This has resulted in rising grain prices and contributed to inflationary pressures in China. New policies to encourage grain production have been hampered by overall efforts to transform China's agriculture into a more market-based system where increasingly scarce land and water resources are allocated to their highest value use. This has favored production of cotton, soybeans, and horticultural crops. Given the current set of policies and resources, it is expected that China will remain a significant wheat importer for some time.

Prior to China's policy changes, USDA projected that rice area in China would continue to be lost to competing uses including cash crops and urbanization. Whether China's policies will be successful remains to be seen. It is reasonable to assume, however, that China's rice yields will improve and per capita consumption likely will decrease as incomes rise and diets change. Hence, assuming normal weather, China's is expected to be a net exporter of rice for the foreseeable future.

It is probable that China will become a net importer of corn in the near future. If per capita incomes continue to rise, meat demand grows, and industrial use of corn expands, it is likely that China will soon re-enter the global market as a significant corn importer.

Oilseeds Outlook

Global oilseed production is expected to increase 13 percent in 2004/05, up more than 40 million tons from 2003/04, with soybeans accounting for about 80 percent of the increase. Planted area, especially in South America, has increased in response to the growth in world demand and relatively strong prices. A recovery from last year's drought and disease-reduced yields is expected to drive up soybean production by 19 percent. Higher prices are also expected to boost area and production in the world's leading soybean importer, China. Despite increased production, China's imports are projected to increase as protein and vegetable oil demand continue to expand.

Global protein meal consumption is expected to increase 6 percent in 2004/05, led by gains for both soybean and cottonseed meal. Once again, China will lead the growth with an expected 6 percent increase in soybean meal consumption. Global vegetable oil consumption is projected to increase 4 percent in 2004/05, led by a projected 9 percent increase in China. China's per capita consumption of vegetable oil has increased as incomes have risen (see appendix Figure 8). Despite a 6-percent increase in global oilseed use, 2004/05 world oilseed stocks are projected to rise nearly 40 percent. Consequently, soybean prices are projected to decline 15-20 percent from 2003/04 levels.

South American Soybean Production: Since 1998, global soybean consumption has increased more than a third and trade has increased nearly 75 percent. China has accounted for a significant portion of this astonishing growth. In only 6 years, imports have increased by about 18 million tons, reflecting the sharp growth in protein meal consumption over the period. Meal consumption growth in turn reflects higher incomes and greater demand for meat in the diet. How has the world accommodated this unprecedented rise in soybean consumption and trade? The answer lies in South America, especially Brazil. As shown in appendix Figure 9, during the next decade growth in Brazilian output is expected to far exceed growth in Argentina and the United States. Since 1998, Brazil and Argentina combined have more than doubled their output of soybeans to a projected 105 million tons for 2004/05. Brazil alone will have added 35 million tons. Without the expansion in South America that coincided with the expansion in world soybean demand, especially in China, prices would have risen even more sharply and growth in consumption would have been curtailed.

Oilseed Outlook Beyond 2004/05

Will these trends continue? Global protein demand growth is expected to remain strong over the next 5-10 years, which will lead to continued growth in global trade. Reflecting trends of the past 5 years, China alone is expected to account for 70 percent of the world's growth in soybean trade over the next 10 years, becoming dependent on imports for 70 percent of its needs (see appendix Figure 10). The significant investment in oilseed crushing facilities China has made in recent years will push global trade toward oilseeds, limiting expansion of trade in oils and meals. China is projected to increase import demand to over 40 million tons per year within 10 years, compared with about 20 million tons today. Brazil will continue to meet the challenge of supplying soybeans, adding a projected 27 million tons to their exports within 10 years. Other major exporters

(the U.S. and Argentina) will be limited in their ability to expand exports due to limited land available for expansion.

Grain Stocks in China

USDA makes an extraordinary effort to forecast global supply and demand conditions for major agricultural commodities that move in international trade. Given China's importance to the world agricultural economy, USDA dedicates substantial analytical resources to forecasting and assessing the probable impact of developments in this country on world markets.

USDA's analytical process is built on commodity "balance sheets" which summarize the supply and use of major commodities for each country. The reason, of course, is that global trade and commodity prices reflect supply/demand conditions virtually everywhere in the world. In effect, conditions in China affect prices in the United States and conditions in the United States affect prices in China. Thus, for agricultural markets to work smoothly and for commodity prices to be determined efficiently, it is important for the United States and the rest of the world to know supply/demand conditions in China and vice versa.

In recent years, China has begun to develop commodity balance sheets. While considerable progress has been made, much remains to be done. From USDA's perspective, better information from China with respect to grain stocks would be quite helpful. The absence of official stocks estimates from China has been persistent problem for USDA analysts.

Why is this of concern to USDA? Most importantly, stocks estimates and stocks-to-use ratios are basic indicators of present and future supply and demand conditions. As you know, stocks-to-use ratios, are strongly (and inversely) correlated with prices (see appendix Figure 11). And, in a market economy, prices are the primary signal used by farmers to make planting decisions. In this respect, better information in this country with respect to the stocks situation would provide farmers with improved management information.

From the world's perspective, stocks data also provides useful information with respect to forecasting trade flows. For example, will China be an exporter or importer of corn in 2006? The answer to this question will make an enormous difference to world commodity markets, including global prices and planting decisions. But, this question will be difficult to answer without knowing more about China's corn balance sheet. This is only one example.

Thus, estimating country/commodity balance sheets is a high priority at USDA. In the absence of definitive data from China, USDA has made adjustments to estimated stocks levels in China in 2001, 2002, and 2004. Appendix Figure 12 shows the beginning points and ending points of the three adjustments. As Figure 12 shows, USDA now estimates that China's corn stocks reached nearly 124 million tons in 1999/2000. Since

then, China's corn stocks have steadily declined. By the end to this marketing year, USDA estimates that China's corn stocks will have declined more than 100 million tons since 1999/2000.

It should be noted that USDA's estimates of China's grain stocks include only the portion of supplies that can potentially enter the commercial market. This includes grain stocks held by government agencies, inventories in the commercial sector, and 20 percent of the grain that China's farmers store locally for their own use. The on-farm portion is based on a 1995/96 survey of on-farm storage and farmer attitudes by China's grain researchers.

May 2001 Revisions: In May 2001, USDA revised estimated China stocks of wheat, corn, and rice sharply upward based on information from China's first complete agricultural census done in 1997, official statements (including targeted stocks levels mandated by internal grain policies), press reports, and a review of China's internal prices and trade patterns.

Following its first complete agricultural census in 1997, China made major reductions in its estimates of animal inventories and meat output. China's 1998 *Statistical Yearbook* showed a 16-percent reduction in the 1996 cattle ending inventory and an 18-percent decrease in hog ending inventories compared with previous USDA estimates. USDA livestock analysts re-estimated the 1995 numbers to transition into the newly released 1996 and 1997 numbers. USDA's revised grain stocks estimates reflect these changes. China does release annual estimates for livestock that are built on the 1997 base. To date, however, China has not released revised livestock inventory data prior to 1996. Lacking historical information, USDA's China livestock data contains a significant break in the series.

On December 6, 2000, a senior government official was quoted in *China Daily* as stating that China had 250 million tons of state grain reserves plus a conservative estimate of an additional 135 million tons of grain in on-farm storage. And then, on March 13, 2001, another article in *China Daily* reported total grain reserves at about 500 million tons.

Despite declining production, there was further evidence of higher grain stocks. Stable to falling grain prices, a lack of grain imports, continued grain exports, and continued grain auctions all suggested the presence of larger stocks.

November 2002 Revisions: In November 2002, USDA revised estimated China wheat stocks based on information collected by the U.S. agricultural attaché in Beijing, trade sources, and public statements by Chinese officials regarding grain stocks.

Once again, internal prices and trade patterns strongly suggested that stocks were much higher than previous estimates.

No change was made to estimates of China's wheat production or trade. Increased stocks, for the most part, reflected lower estimated food use. Estimates of per-capita

consumption of wheat for food were lowered based on analysis that suggested rising incomes and increased urbanization led consumers to switch from wheat to other foods.

Slight increases in estimated feed use were made for some years based on auctions of state-owned low quality wheat.

May 2004 Revisions: In May 2004, USDA revised estimates of China's corn stocks upward based on National Bureau of Statistics surveys of urban households (August 2002) and rural households (November 2003), official public statements, and, as in the past, an analysis of trade and price patterns.

Feed use estimates more consistent with USDA estimates of meat production in China were adopted. These revisions also are consistent with USDA's estimates of feed use of soybean meal, other protein meals, and with structural changes that have occurred in China's livestock sector.

Food consumption of corn was lowered based on the household survey data and other information sources. Estimates of industrial use of corn for the production of starch, alcohol, and other products were revised based on industry reports and other sources.

Also, history has shown China prefers to maintain stocks at a much higher level, as a percent of use, than the rest of the world (see appendix Figure 13). As the chart shows, in the mid 1990's China's corn stocks-to-use ratio reached and exceeded 100 percent and led to significant exports. Clearly, China's corn prices would have been much higher if stocks were as low USDA had estimated prior to the adjustment.

Impact of Revised China Corn Stocks on World Markets

In May 2004, USDA more than doubled its estimate of China's 2003/04 corn stocks, from 21 million tons to 44 million tons. This led to a nearly 30 percent increase in world corn ending stocks for the 2003/04 marketing year from 68 million tons to 87 million tons. Given the inverse relationship that generally exists between ending stocks and price, a negative impact on the world price would have been expected. However, in this case and in the cases of prior revisions to Chinese stocks estimates, the market showed virtually no response.

Why did prices remain stable? It appears that many market analysts had already built in these assumptions. In other words, based on Chinese corn prices and trade behavior, the market had already surmised that China's corn stocks were greater than estimated by USDA. Thus, an increase was anticipated and built into world prices.

Whether or not China is a net corn exporter or importer of corn makes an enormous difference to world supply and demand and world prices. Commodity analysts look at China's stocks estimates for clues to China's prospective trade behavior. As indicated in appendix Table 1, the revised stocks estimates suggests that China's corn stocks will be worked down to about 30 percent of use by the end of 2003/04 and 16 percent of use by

the end of 2004/05. While these ratios are high by U.S. standards, they are very low by China's standards. Therefore, USDA assumes that China will limit corn exports to about 8 million tons in 2003/04, down from more that 15 million tons in 2002/03. And, based on various statements and announcements by Chinese officials, USDA assumes that China will limit corn exports to about 4 million tons in 2004/05. Thus, had USDA not adjusted its estimate of China's corn stocks, the May 2004/05 balance sheet would have shown China's ending stocks at virtually zero, clearly an unrealistic conclusion.

It should also be noted that some private sector analysts, prior to USDA's May adjustment, came to a radically different conclusion with respect to China's net corn trade balance in 2004/05. Rather than be net exporter of 4 million tons, these analysts concluded that China would be a net importer in 2004/05. Some forecasts were as high as 12 million tons. Had USDA come to similar conclusion, there is little doubt that a 16 million ton swing in China's trade, if believed by the market, would have resulted in a significant increase in world corn prices.

Concluding Remarks

I would like to close by encouraging the government of China to publish grain stocks estimates similar to the quarterly *Grain Stocks* estimates published by the United States. From my perspective, it would seem more appropriate for the rest of the world to rely on China for the useful information it can provide rather than be subject to market speculation and balance sheets prepared by foreign analysts.

World agricultural markets thrive on information and transparency for efficient decision-making and pricing. As world trade has expanded and producers and consumers in the United States and China have become increasingly dependent on developments in foreign countries, this has become even more important. Not only would improved information benefit China's agricultural sector and consumers, it also would benefit the rest of the world. On the one hand, improved market information and natural market forces would help reduce burdensome commodity surpluses in China that result in low market prices and high government costs. On the other hand, improved information and natural market forces would help preclude critical shortages in China that alarm consumers and result in inflationary price pressures. Stocks information from China would provide world grain markets in the rest of the world with greater certainty and transparency leading to better business decisions and greater price stability.

Again, I wish to thank you for the opportunity to speak at this important conference. Speaking for myself, and on behalf of my USDA colleagues, I can assure you that we consider our work with China to be among most important and rewarding assignments we have experienced in our careers. We look forward to continuing the excellent working relationships we have enjoyed for many years.

Appendix

Figure 1. Chinese and world prices move together

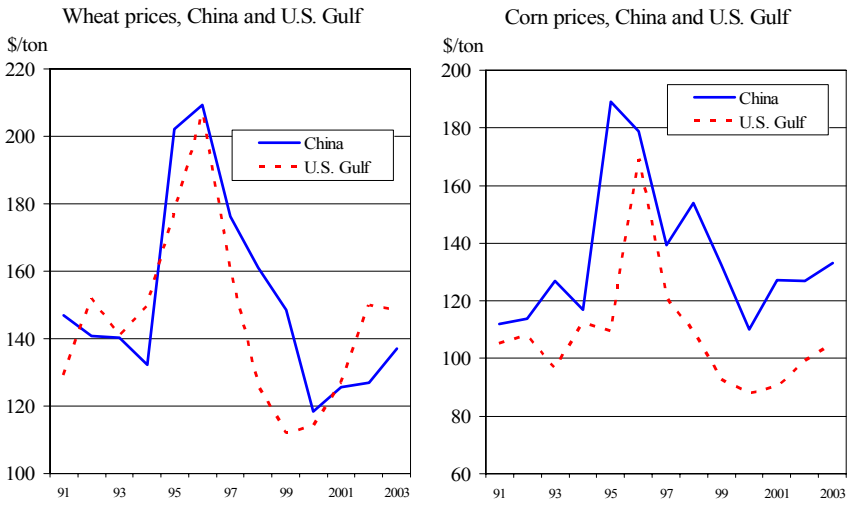


Figure 2. China Sown Area

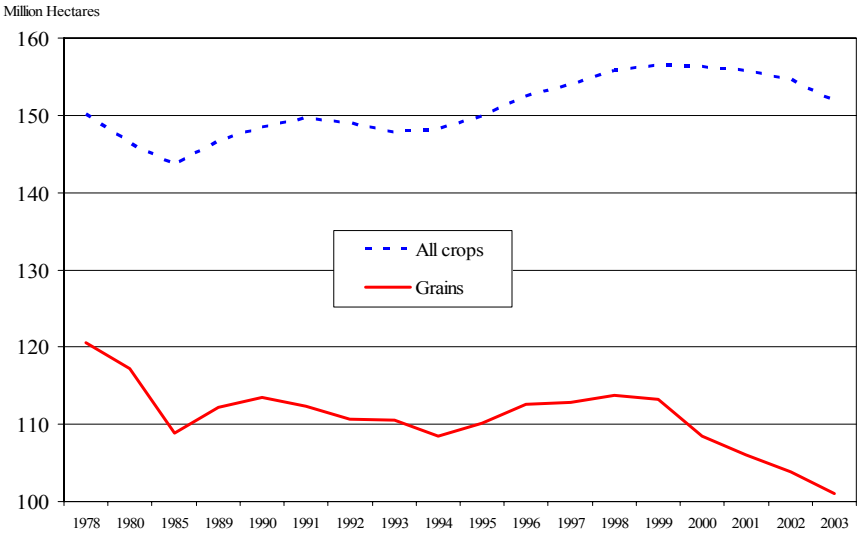


Figure 3. China Wheat Imports

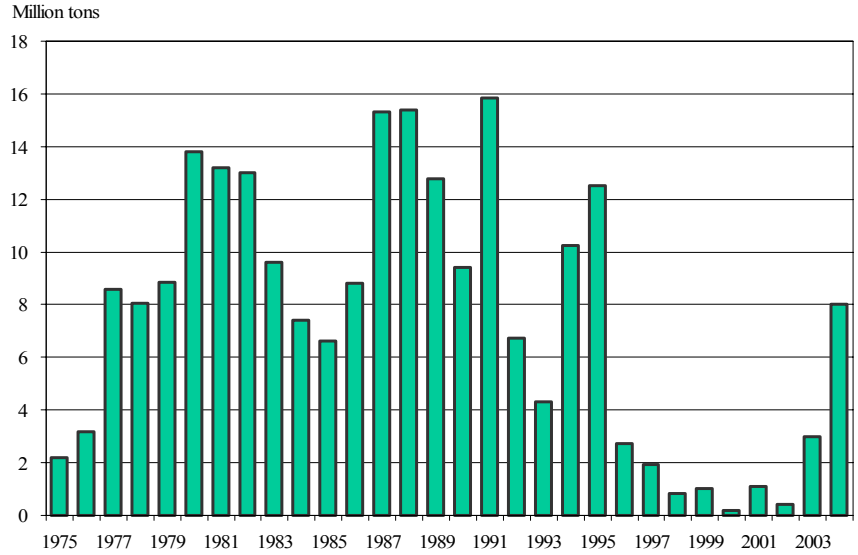


Figure 4. China Rice Area

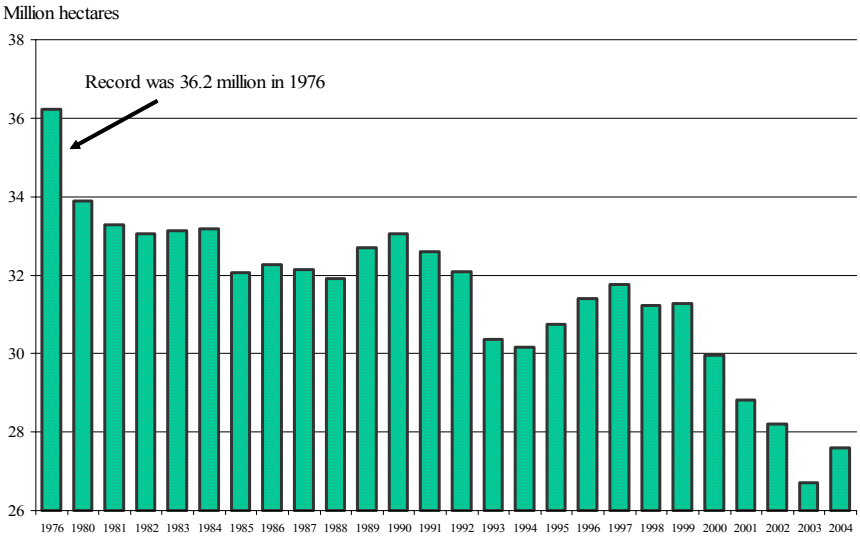


Figure 5. China Rice Production, Consumption, and Stocks

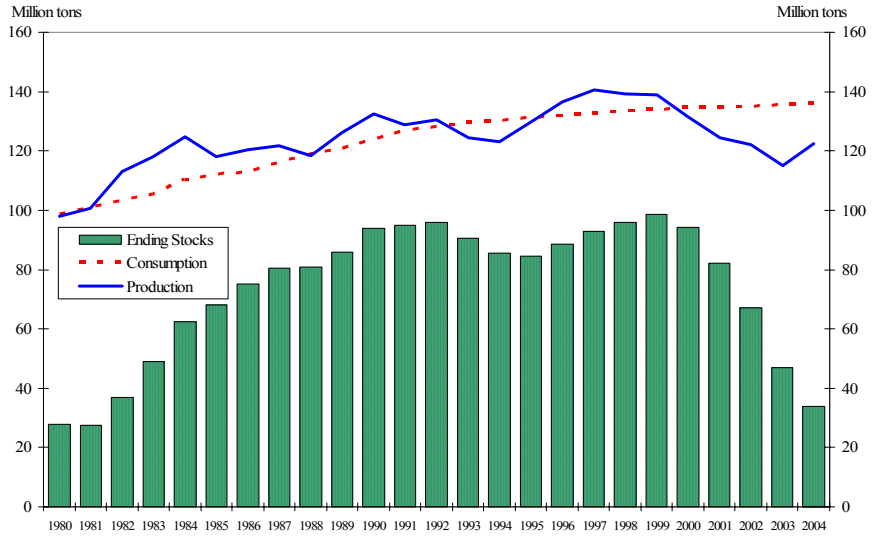


Figure 6. China Corn Stock Changes

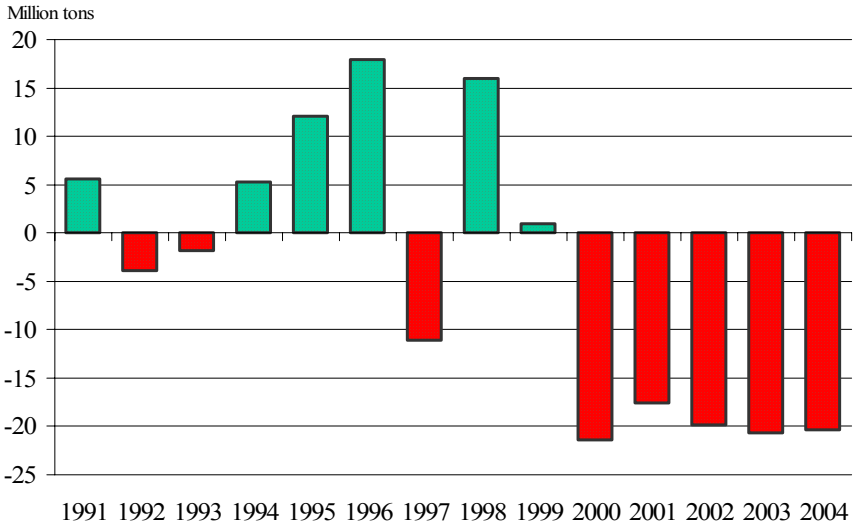


Figure 7. China Corn Exports

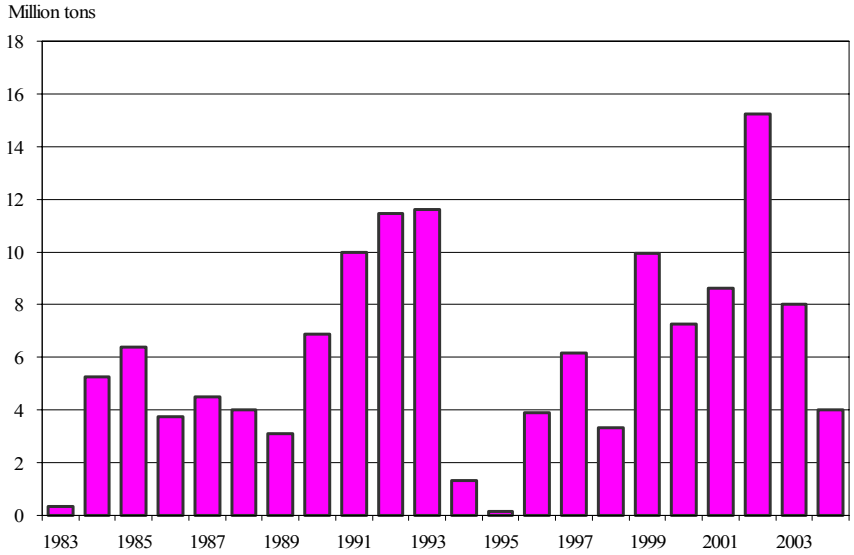
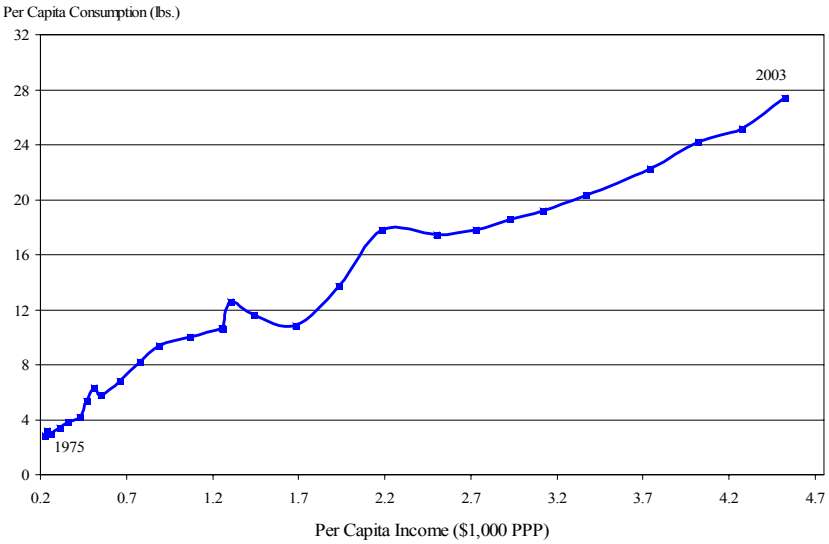


Figure 8. China per capita income and vegetable oil consumption



Note: Purchasing Power Parity (PPP) per capita income as calculated by the World Bank.

Figure 9. Soybean production trends

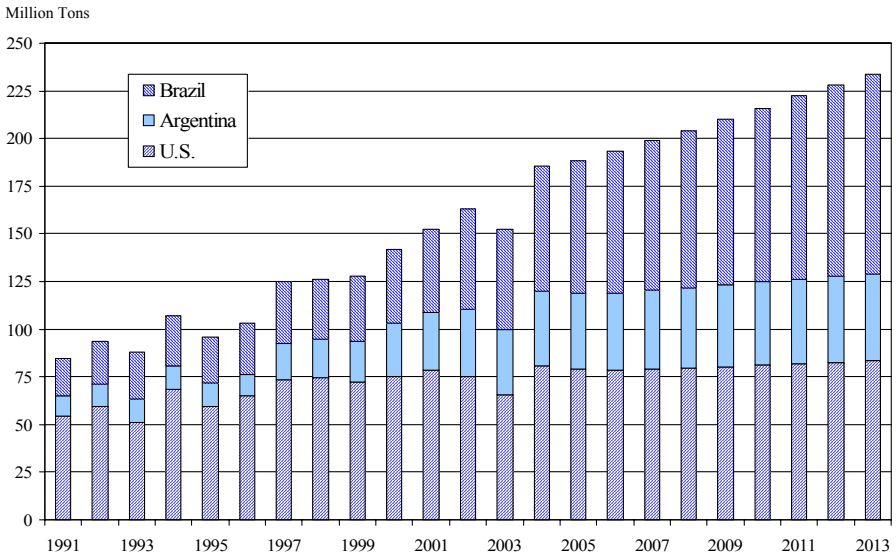


Figure 10. China Import Dependence on Soybeans is Expected to Increase in the Next 10 Years

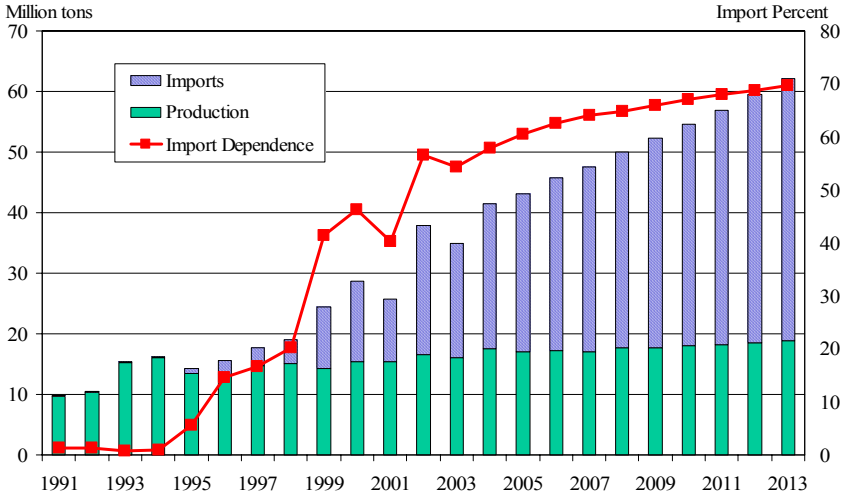


Figure 11. U.S. Stocks/Use Ratio and Prices

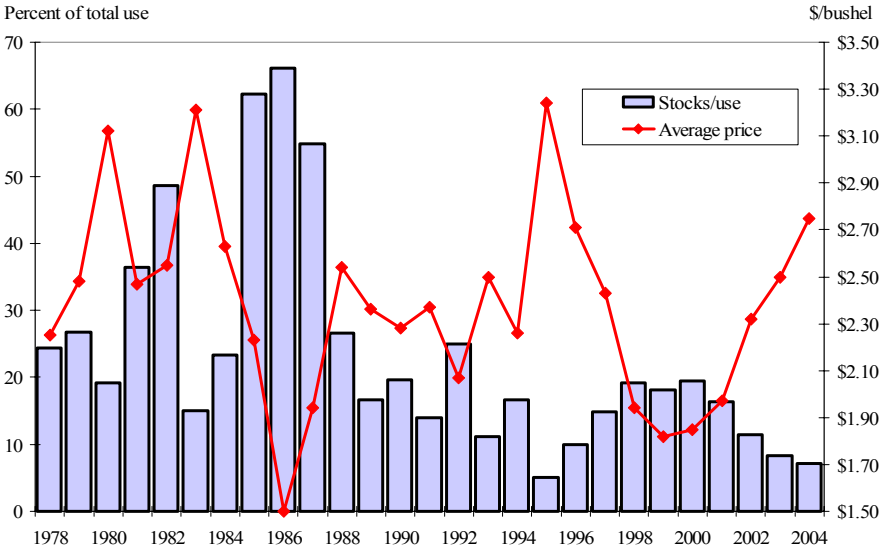


Figure 12. China Corn Stocks

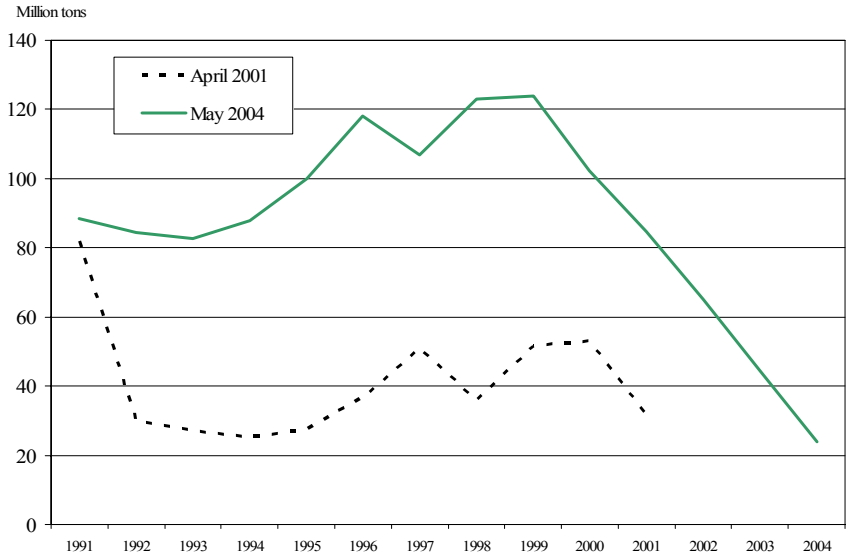


Figure 13. Corn Stocks to Use Ratios

United States and China

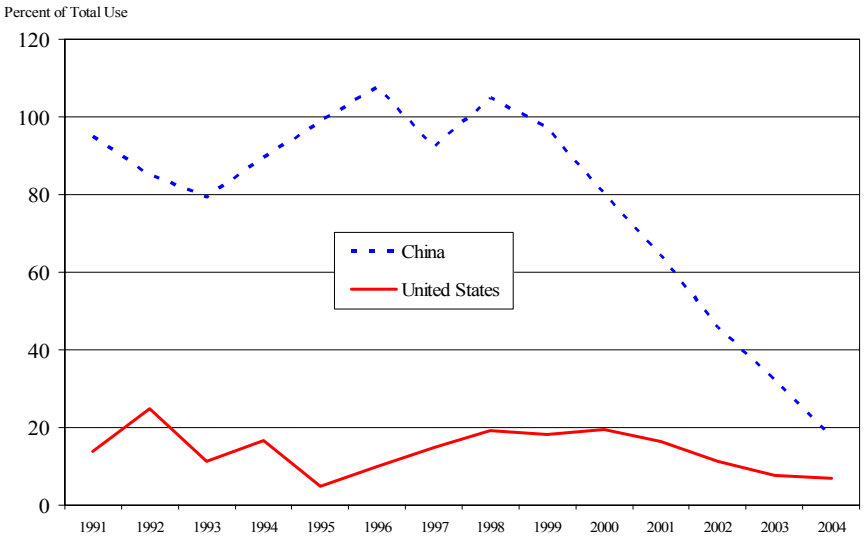


Table 1. China Corn Supply and Use

	2003/04		2004/05
	April 2004 estimate	May 2004 estimate	May 2004 forecast
		Million tons	
Beginning stocks	44.4	65.0	42.5
Production	114.0	114.0	115.0
Imports	0.1	0.1	0.2
Production plus imports	114.1	114.1	115.2
Exports	8.0	8.0	4.0
Feed use	94.0	98.0	100.0
Non-feed use	35.1	30.6	31.6
Total domestic use	129.1	128.6	131.6
Exports plus domestic use	137.1	136.6	135.6
Ending stocks	21.4	42.5	22.1
		Ratio	
Stocks/use	15.6	31.1	16.3